LESSONS LEARNED

Agency Name: **Office of the Insurance Commission**
Project Name: **SIMBA Project**
Project Level: **Level 3**
Date Presented to ISB: **November 8, 2007**

Project Description: The Office of the Insurance Commissioner (OIC) SIMBA Project successfully replaced its long used HP3000 systems supporting nearly all department functions by its June 30, 2007 target. The new Web-based system was custom developed in Microsoft .NET technologies. Started in 2003, the project has deliberately defined its needs, focused on goals and objectives, acquired capable resources, and delivered working functionality. Working system modules have been delivered and implemented every few months throughout 2006 to present. Interviews of agency staff using SIMBA find satisfaction very high and lots of ideas for future improvements not previously possible with the old system.

Original Project Scope: Re-Host OIC's HP3000 Applications to Microsoft .NET environment.

Did the project deliver the functionality that was intended? **Yes** ☒ **No** ☐

If no, please describe.

Original Budget: $3.9 million	Original Schedule: January 2007
Final Cost: $3.0 million	Completed: June 2007

Success Factors:

Executive Support: *Does the Executive Sponsor have a global view of the project, set the agenda, arrange the funding, and articulate the project's overall objectives? Is the Executive Sponsor actively involved, an ardent supporter, responsive, and accountable for the project's success?*

Executive management committed to project success:

- Top management made this project the number one priority which made people available, kept their attention, and assured timely issue resolution.
- An active steering committee including the right people was available to focus effort and provide guidance.

- Open communications on the project between executive management and staff led to trust and collaboration when decisions were required.
- Executive management did not overreact to problems – project management was given the latitude and resource to solve problems once trust was established.

User Involvement: *Do the primary users have good communications skills allowing them to clearly explain business processes in detail to the IT organization? Are the primary users trained to follow project management protocols? Are the users realists and aware of the limitations of the project?*

User ownership and involvement in the outcome:

- Users were involved early and carefully prepared over nearly a year for project participation through active definition of their work processes for the input that would be required during system specification, development, and testing.
- Each business unit had a team lead that was responsible to assure project success and collaborate with leads agency wide. Project management supported and gave these people very specific and important responsibilities which led to early ownership of the system.
- Users were responsible for system and acceptance testing including defining test scripts and executing tests. This started immediately following acceptance of system specifications.
- Team leads were available to clarify any (many) questions from developers.

Experienced Project Manager: *Does the Project Manager possess technology and business knowledge, judgment, negotiation, good communication, and organization skills? Does the Project Manager possess soft skills, such as diplomacy and time management? Is the Project Manager able to communicate with executives as well as business representatives? Is the Project Manager able to say "no"?*

Project management that provides consistent structure, flexible problem solving, and leadership:

- The OIC and vendor project managers created a strong collaborative win-win working relationship. Honesty and trust were the foundation. There was a great positive attitude.
- Project managers had a great deal of authority to work things out within broad project goals. Both had great access to their management.
- Both project managers were skilled and experienced in software development. The SDLC and technical standards were defined in detail at the start of the project.
- Both project managers were strong confident leaders who set a high standard of performance and participation for their teams.
- Project management processes were thorough but simple, and very consistently followed. Schedules and budgets were actively tracked and adjusted to effectively use time and money.

- Independent quality assurance brought out risks and opportunities that were openly examined and often helpful.
- The strength of project management and the project's resources compensated for weaknesses in business and IT support capabilities. This worked as few business processes changed and support requirements were minimal during development. OIC as a whole is less ready for this biennium's projects now that IT support and business change requirements are substantially greater.

Clear Business Objectives: *Are the project objectives clearly defined and understood throughout the organization? Is the project measured against these objectives regularly to provide an opportunity for early recognition and correction of problems, justification for resources and funding, and preventive planning on future projects? Does the agency understand the impact of the proposed business process changes?*

Minimized Scope: *Is project scope realistic and able to be accomplished within the identified project duration? Is it measured and managed regularly to eliminate scope creep?*

Responsive Business Requirements Process: *Does the project employ a responsive requirements process that manages requirements issues quickly and without major conflicts? Requirements management is the process of identifying, documenting, communicating, tracking, and managing project requirements as well as changes to those requirements. This is an ongoing process and must stay in lockstep with the development process.*

Business analysis that defined clear and correct solutions:

- The primary vendor was expert in the agency's business having developed similar systems for other states.
- Project management emphasized open deliberation of difficult issues to assure that all voices were considered to assure a complete understanding and a correct solution.
- Requirements and system specifications were thoroughly documented and rigorously maintained as the clear expression of system requirements and acceptance.
- The primary vendor provided staff on site for business analysis recognizing that communications were much more effective.

Standard Infrastructure: *Has the project established a standard technology infrastructure that includes operational and organizational protocols? Is the infrastructure commonly understood and regularly assessed?*

Technology is applied with an engineering level of discipline:

- Emphasis was based on good design, peer reviews, use of mature technology, early proof of concepts by completing small production components, and documentation of standards and practices.
- Users were exposed to very functional prototypes prior to development to engage their thinking and ensure good feedback.
- Methodology was chosen early and followed closely to create a common language, process, and efficiency that improved with time.
- Technical leaders with expert skills were made available for consultation and active participation in development by both the vendor and OIC to assure balance consideration and early agreement on technical architecture.
- Testing was very rigorous for all software releases by both the vendor and OIC. Three release levels enabled early exposure to code and testing to expose problems early.

Formal Methodology: *Does the project follow a formal methodology that provides a realistic picture of the project and the resource commitments? Are steps and procedures reproducible and reusable thereby maximizing project-wide consistency?*

Planning that balances commitment with capability, and drives work and decisions:
- OIC did detailed deliberate planning before making commitments.
- OIC's vision was very clear. This vision continually guided decision making throughout the project.
- SIMBA scope was conservative in response to their constraints, capacity, capabilities, and risk tolerance. But, it was flexible enough to take advantage of opportunities that enabled future growth and strategic change. Key improvements like integrating databases, cross functional processes, and integration of document management created added minimal risk to development while substantially improving system quality and user enthusiasm for the results.
- Detailed planning defined just what OIC wanted from vendors at the deliverable level, but allowed flexibility to work with vendors to take advantage of their capabilities to arrive at the final products.
- Resource needs were clearly defined and uncompromisingly filled with skilled and productive vendors and staff.
- Scheduling focused on reducing multitasking of staff and setting ambitious development targets buffered by conservative release dates. Task estimates were not padded.

Reliable Estimates: *Does the project have a history of providing realistic estimates? Are the current estimates reasonable and reliable?*

- See Formal Methodology section.

Skilled Staff: *Has the project properly identified the required competencies, the required level of experience and expertise for each identified skill, the number of resources needed*

within the given skill, and when these will be needed? Are the staff available and assigned to the project? Soft skills are equally important when identifying competencies.

Resources and the organization's capabilities and capacity match the project's requirements:

- OIC acquired a strong project manager. The project manager had the budget and procurement support to acquire the resources needed to support the project as required.
- Business areas dedicated resources, backfilled where necessary, and were supported by project management to be able to meet their responsibilities.
- Internal OIC IT staff contributed to the project, but was unable to transition into new roles fast enough to contribute significantly to development and prepare to support the new system. Resources were adequate to acquire vendors to provide needed support and continue to be important to supporting the system.
- The primary vendor utilized highly competent and affordable staff in India to provide fast responsive development of the software. Software was rigorously defined, rapidly completed following rigid software quality processes, and thoroughly tested. Efficient vendor development allowed small but important adjustments during development that contributed significantly to user satisfaction. Few change requests were needed. Rework was minimal. Defects were quickly resolved.
- The project manager had contingency funding and responsive executive management that allowed adjustments to be made.
- Project management had strong administrative support to maintain records, support procurements, schedule staff, organize training, and other tasks allowing the project manager to focus on management.

Contract Negotiation and Management: *Is the project using resources experienced in contract negotiations? Does the project organization include a resource whose sole function is contract management?*

Vendors are efficiently acquired and fairly managed:

- Procurements were based on detailed specifications and high standards for capabilities.
- Vendor relationships were carefully initiated and tested early to assure fit.
- Gaps in capacity or capabilities were readily filled via good anticipation of needs, efficient procurement processes, quick receipt of authority to spend, and keeping capable vendors well informed of potential work.
- Vendor relationships became partnerships based on a good balance of tough requirements on one hand and flexible collaborative relationships focused on win-win results on the other.

Implementation: *Has the project developed a reasonable plan for implementation? Are the duration and amount of user training adequate?*

- See Formal Methodology section.

Additional Items:

Under the original IT Investment Plan, OIC had opted to implement a systems integrated solution (i.e., integrated COTS package) as outlined in the HP3000 Migration Feasibility Study. In support of this decision, OIC proceeded forward with the Requirements Gathering effort in the fall of 2004. To mitigate the risk of an unsuccessful acquisition during the solution selection phase of the project and to establish confidence that undertaking a competitive procurement will result in receiving a complete solution, members of the OIC project team conducted market research to identify a comprehensive list of likely software solutions and integration vendors capable of meeting the agency's HP3000 migration needs.

The objective of this effort was twofold. First, to validate the assumptions outlined in the Feasibility Study that assumed that OIC could, with the assistance of a qualified integrator, procure one or more software products capable of meeting the agency's business needs and integrate them together for the amount requested in the agency's upcoming 2005 - 07 biennial decision package. Secondly, to collect information to finalize the migration strategy prior to initiating the solution selection phase. To the extent possible, the market research also attempted to identify updated implementation costs and time estimates, level of effort to implement, where the system/product had been previously implemented and contact information of current customers.

To accomplish this effort, OIC released a detailed Request For Information (RFI) to every vendor registered with General Administration, vendors outlined in the Feasibility Study and solution providers that were identified through other sources. In addition to the market analysis, OIC expanded their analysis to include analyzing similar system replacements undertaken by other insurance regulators and revisiting the porting and development options that were previously discounted by the original Feasibility Study.

In response to the information learned as a result of the market research, OIC has opted to pursue a "build and integrate" migration strategy over the original "buy and modify" migration strategy that was outlined in the Feasibility Study. Under this approach, OIC will build a "core system" that can support both integration with commercially available products and improved data exchange with the NAIC. This option is intended to mitigate the risks associated with "buying and modifying" vendor software to a point that the software is no longer "out of the box" and to avoid the up front costs that the project would incur by purchasing vendor produced software. The key difference between the two strategies ("build and integrate" vs. "buy and modify") is that OIC will leverage the expertise of a qualified vendor to custom develop the minimum level of core functionality necessary to replace the HP system and then assist the agency with integrating other commercially available products based on fit and adaptability with the new core system. Under the original strategy (i.e., integrated COTS), OIC would have purchased one or more commercially available software products and then utilized custom software development to make the products work together, including developing

custom software to fulfill missing business functionality. The original strategy would have forced the project to incur significant upfront costs without achieving standalone benefit, and the overall solutions would have likely had a higher “total cost of ownership” due to the high level of customization that will have had to be managed during maintenance and software upgrades.